

CLAIMS

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1. A glass printing ink or glass printing lacquer comprising at least two resins, which together yield a photo-hardenable mixture, and at least one photoinitiator,
5 characterised in that one of the resins comprises a bisphenol A based epoxy resin, diluted in a UV hardening monomer, and the at least one other resin comprises a resin which comprises free functional amino, hydroxy, epoxy, acid, acid
10 anhydride and/or acrylate groups.
2. A glass printing ink or glass printing lacquer according to claim 1, characterised in that
15 the bisphenol A based epoxy resin exhibits a weight average molecular weight in the range from 800 to 1500.
3. A glass printing ink or glass printing lacquer according to claim 1 or claim 2,
20 characterised in that the at least one other resin comprises a melamine acrylate, an acid-modified polyester acrylate and/or an epoxy acrylate.

4. A glass printing ink or glass printing lacquer
according to any one of claims 1 to 3,
characterised in that
the epoxy resin is used in a quantity of 1 to 90 wt.%,
5 preferably of 5 to 20 wt.% and in particular of 11 to 14
wt.% dry weight, relative to the weight of the glass
printing ink or of the glass printing lacquer.
5. A glass printing ink or glass printing lacquer
10 according to any one of claims 1 to 4,
characterised in that
the at least one other resin is used in a quantity of 5
to 90 wt.%, preferably of 5 to 40 wt.% and in particular
of 10 to 30 wt.% dry weight, relative to the weight of
15 the glass printing ink or of the glass printing lacquer.
6. A glass printing ink or glass printing lacquer
according to any one of claims 1 to 5,
characterised in that
20 the photoinitiator(s) is/are present in a total quantity
of 1 to 12 wt.%, in particular of 3 to 7 wt.%, relative
to the weight of the glass printing ink or of the glass
printing lacquer.
- 25 7. A glass printing ink or glass printing lacquer
according to any one of claims 1 to 6
characterised in that
the UV hardening monomer is hexanediol diacrylate.

8. A glass printing ink or glass printing lacquer
according to any one of claims 1 to 7,
characterised in that
it further contains a UV hardening reactive diluent other
5 than the UV hardening monomer.
9. A glass printing ink or glass printing lacquer
according to any one of claims 1 to 8,
characterised in that
10 it further contains a stabiliser.
10. A glass printing ink or glass printing lacquer
according to any one of claims 1 to 9,
characterised in that
15 it further contains a co-initiator.
11. A glass printing ink according to any one of claims
1 to 10,
characterised in that
20 it contains one or more pigments or dyes in a quantity of
0.5 to 50 wt.%, relative to the total weight of the ink.
12. Use of a glass printing ink or of a glass printing
lacquer according to any one of claims 1 to 11 for
25 printing a glass or at least superficially vitreous
substrate.

13. Use according to claim 12,
characterised in that
the glass or vitreous substrate is selected from among
glass, ceramics and tiles.

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14. A method for printing a glass or at least
superficially vitreous substrate with a glass
printing ink or a glass printing lacquer according
to any one of claims 1 to 11, comprising the steps:

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- a) pretreating the glass or vitreous
substrate;
- b) printing the glass or vitreous substrate
with a glass printing ink or a glass
printing lacquer according to any one of
claims 1 to 11, wherein a coupling agent
is mixed into the glass printing ink or
the glass printing lacquer before
printing, and
- c) hardening the glass printing ink or the
glass printing lacquer with UV radiation;
wherein no subsequent heat treatment is
performed.

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15. A method for printing a glass or at least superficially vitreous substrate with a glass printing ink or a glass printing lacquer according to any one of claims 1 to 11, comprising the steps:

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(a) printing the glass or vitreous substrate with the glass printing ink or the glass printing lacquer without using a coupling agent;

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(c) hardening the glass printing ink or the glass printing lacquer with UV radiation; and optionally

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(d) thermally post-treating the printed glass or vitreous substrate at a temperature of 130°C to 170°C for 20 to 40 minutes.